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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

KANG, ROBERT N


ART UNIT

PAPER NUMBER

2622

DATE MAILED: 03/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/056,857	Applicant(s) WARDELL ET AL.	
	Examiner Robert N. Kang	Art Unit 2622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 December 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7, 9, 11-17, 19, 21-27 and 29 is/are rejected.
- 7) ☒ Claim(s) 8, 18, 28, 10, 20, 30 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 December 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Response to Amendment

Response to Arguments

1. Applicant's arguments, see page 11 of Applicant's Amendment, filed 12/27/2005, with respect to the rejection(s) of claim(s) claims [1, 11, 21] under 35 U.S.C. § 102(b) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Dorfman (US-PAT 5,960,164), based upon an alternate interpretation of the same prior art to meet the limitations emphasized by the applicant.

2. Applicant's arguments, see page 13 of Applicant's Amendment, filed 12/27/2005, with respect to the rejection(s) of claim(s) claims [8, 18, 28] under 35 U.S.C. § 103(a) have been fully considered and are persuasive based upon the previous interpretation of Dorfman utilized by the examiner. Therefore, the rejection has been withdrawn. However, under the new interpretation of Dorfman as described under item 6, the claimed invention is unpatentable over the aforementioned Dorfman/Shirakawa combination.

3. Applicant's arguments, see page 13 of Applicant's Amendment, filed 12/27/2005, with respect to claims 10, 20, and 30, have been fully considered and are unpersuasive. Applicant states "disagrees that associating the identifier recited in claim 1 with a tag is analogous to specifying that a field is variable." Dorfman discloses in column 8, lines 37-46, "the database publisher 11 will include in the data set 12' document references

for all of the document to be inserted in the booklet stream.” These document references are obtained through the reception of the “first identifier,” the job association table sent by the computer 24. Dorfman continues, “the document specifications will be converted by the imaging system to specific background pages onto which variable data can be overlaid... The variable data to be included on all the documents is schematically illustrated in Table II.” Table II shows various names and rates which can be changed to suit the specific print job. Dorman further discloses in column 9, lines 9-16, “the database publisher 11’ specifies document identifiers and variable data while the imaging system at the first site prints all the sheets of that document and merges the variable data. The VCC station 14 provides the ‘middleware’ which provides the initial database information which relates document Ids to bit images of signatures, and variable data fields to fields provided by the database publisher.” Therefore, the “first identifier” is augmented with data tags which then are replaced by a reference to the actual variable data. During printing this variable data is then printed on the booklet depending on specific user selection for the print job.

4. Regarding the argument posed by Applicant regarding claims 2, 12, and 12 on page 12, stating “Applicants do not understand how association with resources fairly discloses a print optimizer,” Examiner cites Applicant’s own description of the print optimizer: “The print optimizer 302 also includes a processing module 322 which containerizes or RIPs (rasterize and print) resources in the impositioned document to a printer-renderable form. The print optimizer 302 also maintains and manages a

database 324 which associates resource identifiers with AFP identifiers such as the resource name and object ID. " The job formatting table 22 not only associates resources with parameters, but also creates a printer specific job data stream with parameters exclusive to the specified print engine. Therefore, it qualifies as a "print optimizer".

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1, 11, and 21 are rejected under 35 U.S.C. 102(b) as being anticipated by Dorfman (US-PAT 5,960,164).

In regards to claims 1, 11, and 21, Dorfman discloses a method of printing and printing system for printing impositioned documents, the system comprised of, as stated in column 3, lines 47-50, "a first computer remote from the second site containing an object association table which associates document production jobs with specific documents and appropriate object descriptions." Since this first computer is directly attached to the user interface (UI) and therefore, both the print command and the source document generation, this comprises "receiving source data," satisfying the requirements of limitation 1.

From this source data, an object association table 21 is made available to the database publisher 11', as shown in figure 2 and disclosed by Dorfman in column 6, lines 64-67, stating, "supplied to the stream build process is the data set 12' which has been produced by the database publisher 11' utilizing the object association table 21." Dorfman discloses in column 6, lines 23-27, "the purpose of the Object Association Table is to provide the user with the codes assigned to the objects, used to build user documents, by the XLC system 13. There are two types of objects: selectable groups (templates), and Images. Along with the variable text data, that represents the data that the user wants to print." A template, defined in the context of document generation, is a standard layout which defines the spatial positioning as well as look and feel of a document. The applicant has disclosed that a "job ticket refers to any data structure having resource identifiers and layout information describing a layout of the resource in the document as it will be printed when impositioned." Therefore, sending the object association table 21 to the database publisher 11' qualifies as "receiving a job ticket generated from the source data, the job ticket having a first identifier identifying a resource of the document and layout information describing a layout of the resource in the document."

Regarding limitation 3, "generating a second identifier associated with the resource, the second identifier recognizable by a printing device," Dorfman discloses a job formatting table 22, which, as disclosed by Dorfman in column 7, lines 19-26, "provides a translation mechanism at a translation site to map variable data fields provided in data set 12' which is specific to the particular print engine 17, 17' and

reflects engine specific parameters such as resolution and imposition, while serving to hide production specific information from the data publisher 11'." Because the job formatting table creates a "printer specific data stream," the stream 25' constitutes a "second identifier associated with the resource, the second identifier locally recognizable by a printing device."

Dorfman discloses in column 3, lines 47-66, an embodiment wherein the "first site" corresponds to the database publisher 11'. The first computer, providing the database which stores the resources specified by the object association table, or "job ticket" is local to the database publisher 11'. Therefore, the resource is "stor[ed] locally to the printing device." Furthermore, Dorfman discloses that the translation (third) computer containing the Job Format Table may be separate from the first site, and therefore, the second identifier is stored "remotely from the printing device" in the disclosed embodiment.

Therefore, the requirements of claims 1, 11, and 21 are met by Dorfman's invention.

Regarding claims 2, 12, and 22, the applicant discloses on page 5, lines 28-29, "the print optimizer 302 also maintains and manages a database 324 which associates resource identifiers with AFP identifiers such as the resource name and object ID." The third computer in Dorfman's printing system and method, containing the job format table, receives the source data and stores the second identifier. Because the third computer builds a print data stream via data received from the object association table,

it inherently associates resources with identifiers. Therefore, the third computer as disclosed by Dorfman qualifies as a "print optimizer" which receives the source data "and the second identifier is stored in the print optimizer." Regarding the second limitation of claims 2, 12, and 22, "the job ticket is generated by an impositioning module," the first identifier for document formatting, contained in the job ticket, is generated in Dorfman's system by the third computer. As stated in the applicant's disclosure on page 6, lines 19-20, "the imposition module 304 generates job tickets describing the layout of the imposed document." Since the third computer utilizes the aforementioned job formatting table to determine the layout of the imposed print job, the third computer as disclosed by Dorfman qualifies as an "imposition module."

In regards to claims 3, 13, and 23, Dorfman does not expressly state the steps of generating the second identifier comprises "determining if the resource is a new resource," and "generating the second identifier and associating the second identifier with the resource only if the resource is a new resource." In fact, Dorfman does not disclose any of the operations in generating the object association table. However, the examiner asserts that in any look-up table or memory management program, new entries are only inserted into the table when identical resources have not been mapped. This method of updating a table is well known with the computing industry and thus inherent in Dorfman's object association table. Thus the limitations of claims 3, 13, and 23 are anticipated by Dorfman's patent.

Regarding claims 4, 14, and 24, Dorfman's system, which inserts variable data to an impositioned document via a second computer, disclosed in lines 53-54 of column 3, utilizes a third computer for "translating the database information containing specific filenames from the second computer to produce a print image stream specifically for controlling the specific print image." Therefore, the data as sent from the second computer is not readable by the print engine, and is thus converted into a "printer renderable form."

In regards to claims 5, 15, and 25, "wherein the printer renderable form is compliant with a page description language," Dorfman discloses an XLC data system 13, communicably attached to the color raster-image-processor (CRIP) 13, which converts text and graphics files into a print image stream to be printed by print engine 17. As stated in column 8 of Dorfman's disclosure, "the XLC system 13 processes text by pre-rasterizing only the fonts and characters. All variable data is built dynamically by the imaging system in the stream build process 23. Once a given font is downloaded into the system the printer can (theoretically) print with substantially no limitations related to the number of different text combinations. The XLC system 13 will pre-RIP all document pages as part of its internal job set up operation. The source of these documents can be any design application which can be generated as an EPS file; in fact it is expected that the document identification can actually be the file name of the original design application." Broadly defined, a page description language (PDL) is any language renderable by a printer which describes the page layout, settings, and

orientation. Thus, and EPS file (encapsulated post script) qualifies as a page description language. Therefore, the resource is converted to "a printer renderable form compliant with a page description language."

With regards to claims 6, 16, and 26, the "resource," or source print data, in Dorfman's system, is contained within the "print image stream" produced by the third computer. The fourth computer, communicatively coupled to the print engine "utilizes the print image stream from the third computer," as stated by Dorfman in column 3, lines 61-64. Therefore, the print image stream is stored in computer four. Thus, in the case that the computer four is a part of the printer, and in the case that computer four is a print server, the "resource is stored in the memory of the printer or in a memory of a print server."

With regards to claims 7, 17, and 27, the same concept is utilized for the rejection of claims 3, 13, and 23. Look-up table or memory addressing tables with automatic updating, as opposed to immediate insertion, were well known within the art at the time of Dorfman's application. Therefore, it can be fairly asserted that Dorfman's system only stores the resource locally to the printer "only if the resource is not already stored locally to the printer."

In regards to claims 9, 19, and 29, Dorfman discloses in column 4, lines 24-40, "a method of setting up a system for a data publisher to provide data for a remote imaging

system to print and merge the data in signatures which are combined into a document, and where a number of documents are combined to produce a booklet. Thus the "impositioned document comprises variable data." Furthermore, Dorfman depicts in figure 4, step 40, a step for determining the variable data fields in a given print job. This is comparable to "augmenting the job ticket with the variable data."

With regards to claims 10, 20, and 30, Dorfman discloses in figures 3 and 4 a patented method for including variable data in impositioned documents. First the data is received by computer 24, which contains the object association table 21. Thus the "source data having a variable data tag" is accepted. Figure 4 diagrams a flow of operations occurring between the object association table 21 and the database publisher 11'. Step 41 in figure 4 indicates the process "specif[ies] variable data fields." Therefore, this qualifies as "a first identifier" associated with the "variable data tags." Step 51 in figure 4 of Dorfman's system is to "place variable fields in signatures." This qualifies as "replacing variable data tags with variable data or reference to the variable data." After the data has been replaced, step 53 of figure 4 transfers the database tables to the database publisher 11'. Therefore the job ticket generated by the second computer is augmented "with the variable data or reference to the variable data," since computer three as disclosed in column 3, line 55-60, "use[es] the database information supplied by the second computer and a job formatting table for translating the database information containing specific file names from the second computer to produce a print image stream."

Regarding new claims 31-33, requiring the method/apparatus/method of claims 1, 11, and 21 to include the limitation that "the second identifier is generated from the first identifier," in the new interpretation by the examiner, the second identifier is the printer specific data stream 25, which is generated, as shown in figure 2, by the stream build process 23 utilizing a data set 12' which was in turn generated by the object association table, or the "job ticket" or "first identifier." Therefore, the second identifier is generated from the first identifier.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Dorfman meets the requirements of claims 1, 11, and 21, upon which claims 8, 18, and 28 depend. With regards to cited limitation 2, requiring the step of "transforming the first identifier into the second identifier," recall that Dorfman's first identifier, the job association table 21 sent from the computer 24 to the database publisher 11', delineates the resource filenames and layout templates to be printed. This information is included in a data set 12' which is utilized by the stream build process 23 to create

the second identifier, the engine specific print image stream 25. Thus, this operation comprises "transforming the first identifier into the second identifier."

Dorfman does not expressly disclose a second layout information describing a second layout of the resource in the document.

Shirakawa discloses a method of evaluating multiple layouts for document printing. Shirakawa discloses in column 3, lines 13-17, a "layout means for virtually setting rectangular columns on an area where documents are arranged, and searching for an unused sole column or compound column until said columns are filled with articles or all articles are completely arranged to attain layout results on articles which can be arranged." Therefore Shirakawa's system contains multiple layouts to be selected by a layout selection means, as disclosed in column 3, lines 25-28, a "best layout result retrieval means for selecting a layout result having the best evaluation value given by said layout result evaluation means from said multiple layout results determined by said layout means."

Dorfman and Shirakawa are combinable because they both deal with static image processing with regards to page layout.

Therefore it would have been obvious at the time of invention to one of normal skill in the art to include in Dorfman's imposed document printing system a method of transmitting and selecting multiple or alternative layouts as taught by Shirakawa.

The purpose of this modification would be to allow for user or computer selection of alternate layouts in printing imposed documents.

Thus it would have been obvious at the time of invention to combine Dorfman with Shiwakawa to obtain the invention disclosed in claims 8, 18, and 28.

Conclusion

This action is non-final due to a change in interpretation of the Dorfman reference by the Examiner.

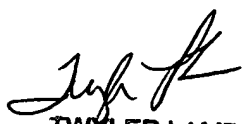
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert N. Kang whose telephone number is (571) 272-0593. The examiner can normally be reached on M-F 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Coles can be reached on (571)272-7402. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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